ABSTRACT

This invention provides pyrimidine derivatives represented by a formula,

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in the formula,

ring A stands for carbocyclic group or heterocyclic group,

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X¹ stands for hydrogen, lower alkyl, amino, etc., X² stands for hydrogen or lower alkyl, Y stands for a direct bond or sulfur or nitrogen, n stands for an integer of 0 - 4, and Ar stands for a group of the following formula,

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or a salt thereof, which concurrently exhibit 5- HT_{1A} agonistic activity and 5- HT_3 antagonistic activity and are useful for therapy and treatments of diseases such as IBS.

The invention furthermore provides a therapeutic method of IBS, characterized by having 5-HT_{1A} agonistic activity and 5-HT₃ antagonistic activity work simultaneously and cooperatively in vivo, which comprises either administering 5-HT₃ antagonistic agent which concurrently exhibits 5-HT_{1A} agonistic activity, or administering 5-HT_{1A} agonistic agent and 5-HT₃ antagonistic agent simultaneously, in sequence or at an interval.